Title
Continuity and change: Challenging the disposable Chinese city

Journal
Architectural Design, 87(5)

ISSN
0003-8504

Author
Chow, RY

Publication Date
2017-09-01

DOI
10.1002/ad.2224

Peer reviewed

FIELD NOTES

In a Field of Party Walls: Drawing Shanghai's *Lilong*

RENEE Y. CHOW
University of California, Berkeley

The International City

When Deng Xiaoping initiated market reforms in 1978, reopening the country and inviting the newest phase of foreign investment in Chinese cities, the structure and scale of these cities changed dramatically. Today, the governing process rewards the official who can most rapidly transform his or her city into *guoji dadushi*, a "great international city."[1] With an unprecedented release of capital,[2] China has built more—more skyscrapers and high-rises, more housing and malls, more rail systems and highways—than any other country in a thirty-year period.[3]

In Shanghai, the traditional *lilong* (alleyway or lane) housing compounds are being replaced by new gated communities of luxury housing towers surrounded by landscaped parks or paved parking (Figure 1). Widened streets, elevated highways, and spiraling approach ramps to suspension bridges impose a new, vehicular, logic on the city (Figure 2). On its expanding edges, rows upon rows of repetitive housing blocks are organized by an economic logic of mass reproduction and the strict daylight standards that govern the spacing of buildings to ensure that sunlight penetrates residential spaces. Along what were once tow roads running beside canals, new shopping malls have organized their indoor public spaces according to the logic of retailing rather than that of public streets.

Developers, to ensure that each project announces itself as an icon, intentionally dissociate it from its surrounding context. Each building is a discrete object whose separation from other buildings is more important than the relation between them. Spaces between buildings are undefined and cars dominate public space. Urbanism is fragmented as identity is transferred from the city to its component parts. The cacophony of objects that results creates a disorienting urban experience in Shanghai and makes the city confusing to navigate.

This essay presents a set of analytic drawings that trace the formal logic that historically connected the residential scale to the larger scale of the city and surrounding countryside. The orientation, dimension, and spacing of the *lilong* as part of an urban fabric that took its cue from the canal network of Shanghai contributed to the legibility of this city. This essay analyzes this legibility in tracing a history of settlement in Shanghai during two periods of the city's rapid growth: in the first, Shanghai was a water city, a major market town in region during the early Yuan era (the later thirteenth century); in the second phase, it was a modern city, beginning in the 1850s with the period of foreign occupation and continuing into the 1940s. Because the drawings presented here

Journal of the Society of Architectural Historians 73, no. 1 (March 2014), 19–32. ISSN 0037-9808, electronic ISSN 2150-5926. DOI: 10.1525/jsah.2014.73.1.19.

Figure 1 Aerial view of Shanghai, 2004 (author's photo)

reveal relational configurations and continuities beyond those affecting individual parts, they can help address the question of how the megablock-size projects found throughout China can be connected to an evolving heritage.[4]

A Water City

Shanghai sits on the eastern edge of the lower reach of the Yangtze River Delta. The city is located at the intersection of Suzhou Creek and the Huangpu River, a short but relatively deep tributary that joins the Yangtze, China's longest river. If Shanghai's settlement was shaped by commerce, that commercial activity arose because of the settlement's location in the shifting marshes of the lower reaches of the Yangtze. Much of the land around Shanghai is at sea level, and in some cases even below sea level.[5] Flooding and silting have characterized the unpredictable ecology of the delta region, in which rivers once changed course frequently, and waterways were created and then silted up.

Suzhou Creek, known in earlier times as the Songjiang River, was once the major waterway to Suzhou and Tai Lake. Suzhou, situated on both Suzhou Creek and the Grand Canal that linked Beijing with Hangzhou, was a major preindustrial manufacturing center and inland port. During the Song and Yuan dynasties, Shanghai was one of several delta port cities. The silting and subsidence of the delta caused Suzhou Creek to shrink, so that commercial traffic increasingly shifted to the Huangpu River. Given Shanghai's location at the intersection of the two streams, the city benefited as the river grew and the creek ebbed. By 1074, Shanghai had been designated a market town; in 1159 it was promoted, becoming a market city. In the fifteenth century, a new channel was excavated north to the Yangtze River, where the flow of water from the two streams stabilized the common channel (Figure 3).[6]

Although the water in the delta region moved in multiple directions, in the area that today is Shanghai Puxi, the water flowed predominantly from west to east, toward the

Figure 2 Aerial view of Puxi from Pudong, 2012. The sense of the Huangpu River in the city is now understood only from the heights of new skyscrapers (author's photo)

Huangpu River. The canals and their tow roads were the major organizers of new settlements. In early maps of Shanghai, the water is clearly visible. Even the walled portion of the city of Shanghai, built to protect townspeople from piracy and warring dynasties, had west-to-east canals flowing through and around it. Maps of this era also show bridges crossing the canals, but the paths of north-south movement are not illustrated, again emphasizing the greater importance of the east-west flow.

A Modern City

A little more than a century ago, Shanghai was in the midst of its first modern housing boom. As a result of the 1842 Treaty of Nanjing, Shanghai became one of five ports open to foreign trade through concessions to the British, French, Americans, and Japanese. The British authorities set up administrative offices inside the walled city, and British merchants anchored their ships in the Huangpu River and conducted business on the nearby shore. In the British concession, located at the prime intersection of Suzhou Creek and the Huangpu River, a fine-grained open network of gridded streets and lot subdivisions developed, in contrast to the walled Chinese city. Canals were filled in over time, becoming streets that continued to provide access to the Huangpu River and carried commercial and trade activities from the Bund inland (Figure 4).

At the same time, Shanghai's population was growing because of an influx of Chinese fleeing the Taiping rebels and seeking protection in Shanghai, whose status as a treaty port

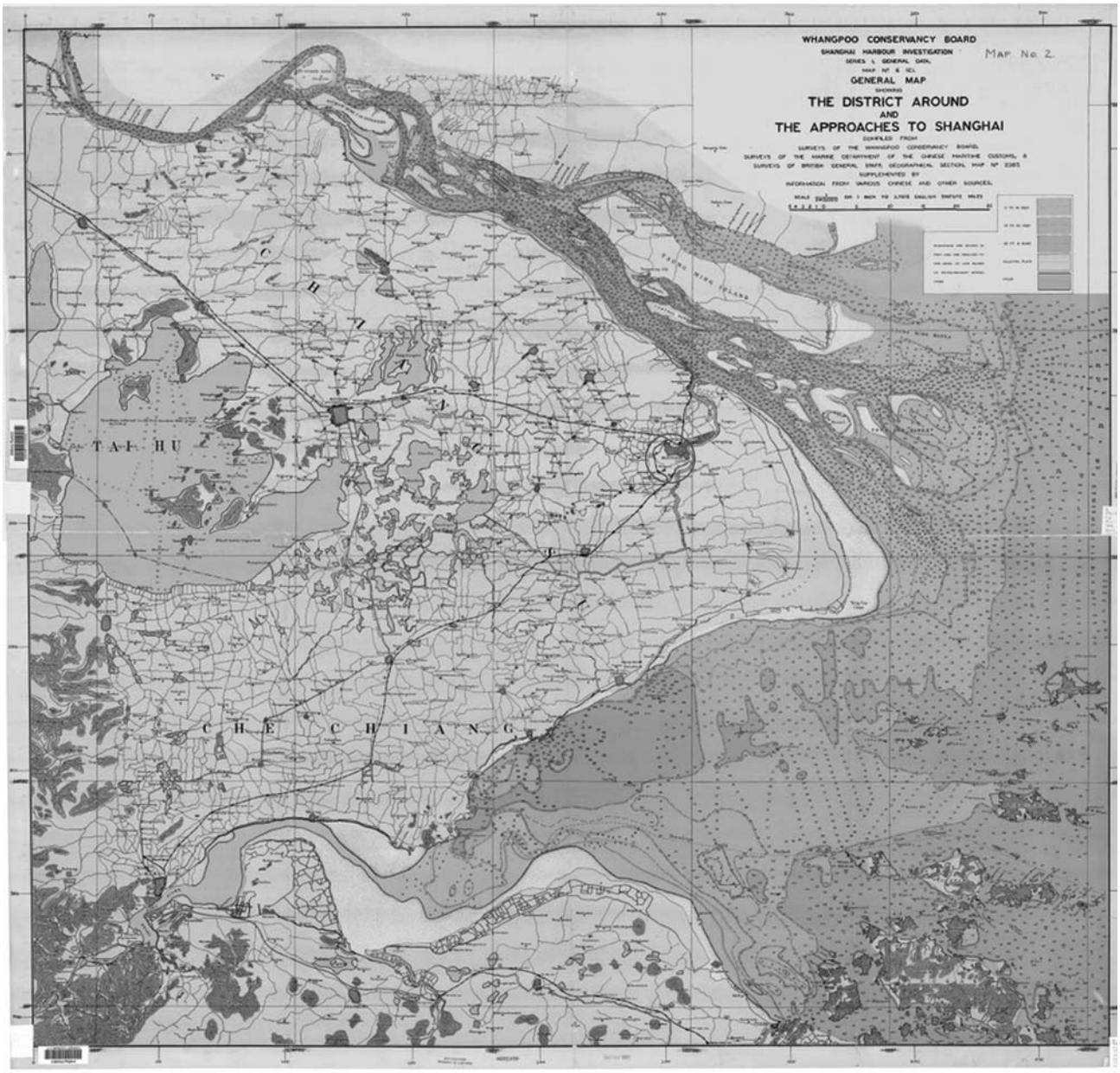

Figure 3 Lower Yangtze River delta, 1920 (Whangpoo Conservancy Board; from the Earth Sciences and Map Library, University of California, Berkeley)

made it a secure refuge. European and later Chinese landowners, taking economic advantage of the resulting housing shortage, developed a speculative mass housing based on a unit prototype, the *shikumen*, which was a hybrid of a townhouse and a courtyard compound. This housing was constructed along alleys in larger neighborhood compounds collectively referred to as *lilong*.[7] These alley compounds were bounded on all sides, contained within walls that separated one compound from the next in a block and screened by shop houses or modified *shikumen* along the streets. This perimeter of buildings and their lower-level shops shielded daily life in the *lilong* from public view.

Early versions of this hybrid house were first constructed in 1853 for traditional extended families (Figure 5).[8] Each dwelling was contained between parallel party walls on the east and west and had a north wall with a service door and small windows and a south wall with a stone portal. The stone portal led from the street to a courtyard patio and then into a central bay, or *ketang*, that was the reception area of the house. In a house three bays wide, bays flanked the patio and reception room, each of which ran the length of the unit. As a result, the courtyard served adjoining spaces, in a manner similar to northern courtyards like the *siheyuan* in Beijing (Figure 6). Stairs behind the reception room provided access

Figure 4 Canals and tow roads flow to the Huangpu River: map of Shanghai walled city and foreign concessions, 1910 (from the Earth Sciences and Map Library, University of California, Berkeley; color overlay by author)

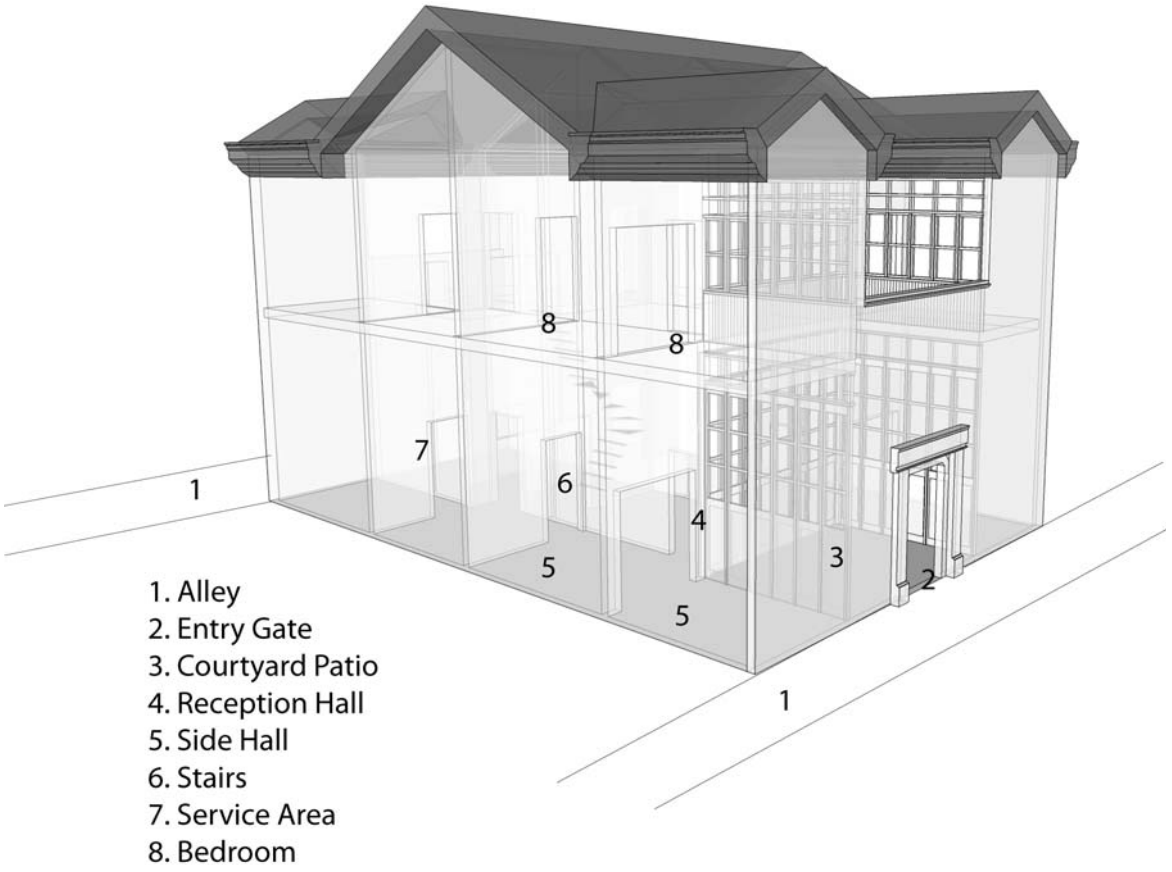

Figure 5 A three-bay *shikumen* (drawing by C. Lesnett)

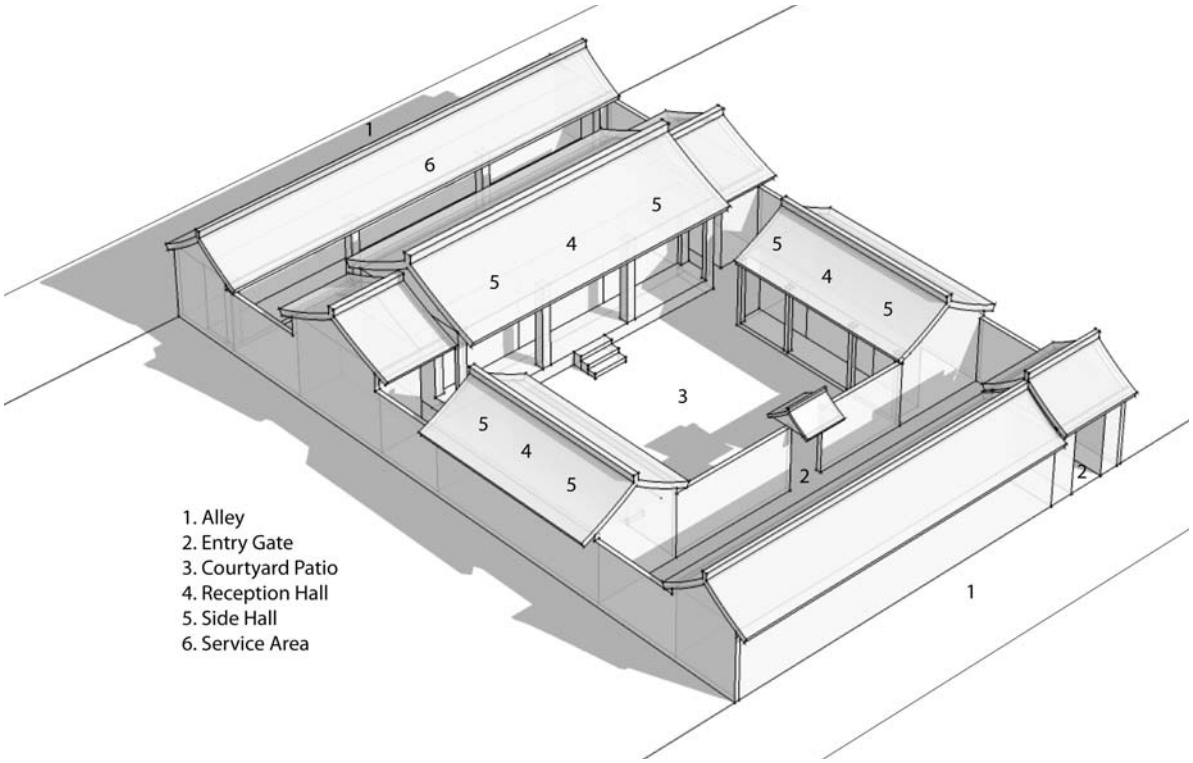

Figure 6 A Beijing *siheyuan* (drawing by C. Lesnett)

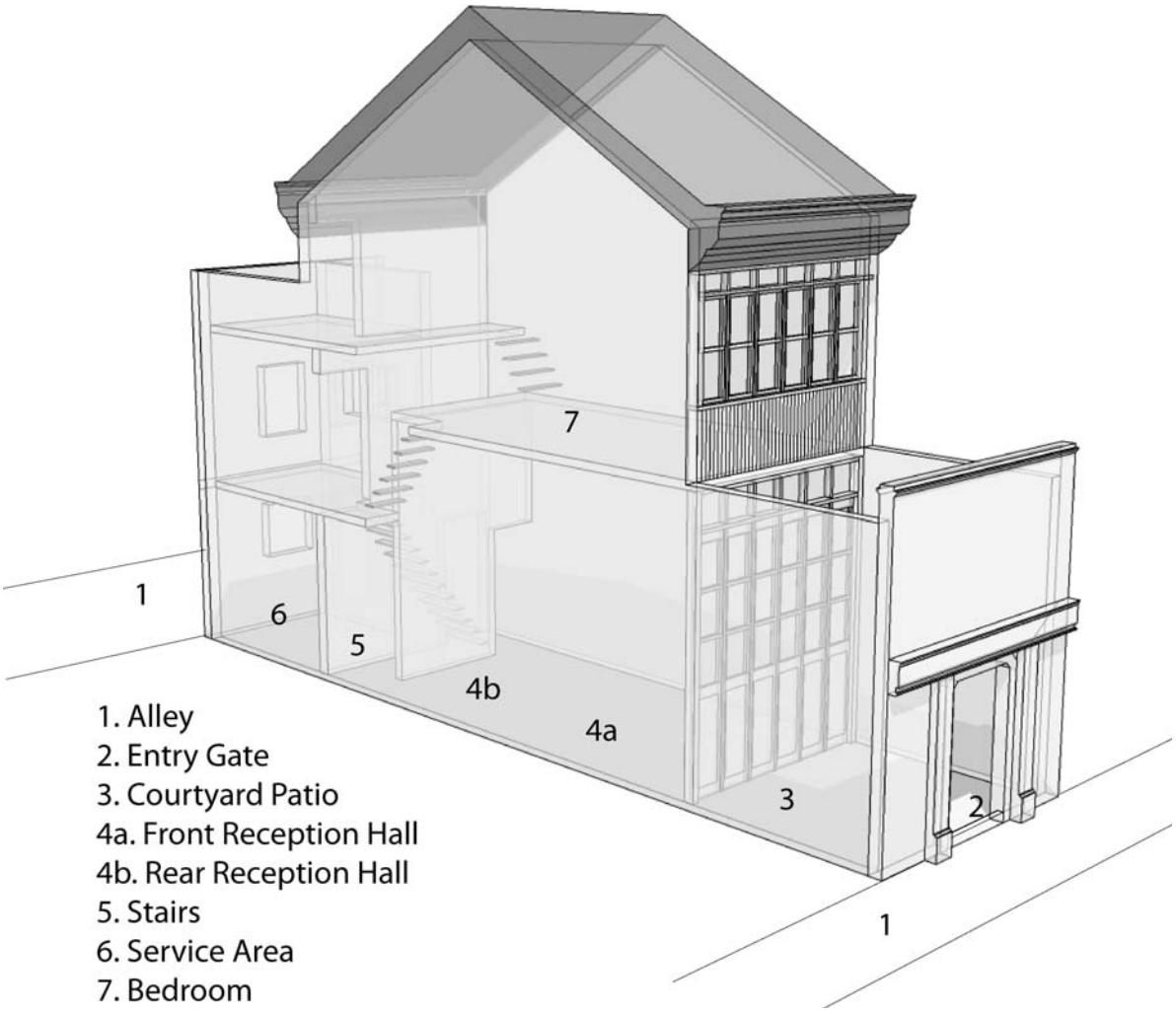

Figure 7 A one-bay *shikumen* (drawing by C. Lesnett)

to an upper level whose plan was nearly identical to that of the ground floor. Beyond the stairs, a series of back rooms and small courtyards inside the north wall were used for food preparation, washing, and other everyday services.

Developing *lilong* proved to be highly profitable: inexpensive to build, the dense, low-rise urban dwelling compounds housed up to six hundred people per acre.[9] At the turn of the twentieth century, *shikumen* with multiple bays were supplanted by smaller and more affordable two-bay units and eventually by one-bay homes, reflecting a shifting pattern of immigration, from landlords and merchants with their families to shop assistants, clerks, and schoolteachers.[10] Even as the party walls enclosed smaller spaces, the depth of the house from south to north remained the same as that of wider houses, and all included an alley, an entry portal, a courtyard patio, a *ketang* of some depth, a stairway, a shallow service zone, a rear wall with service door, and beyond it another alley, from which the same pattern repeated (Figure 7).

Behind streets lined with commercial and institutional structures, rows upon rows of *lilong* were built. *Lilong* were formed along directional axes by replicating the *shikumen* prototype from east to west and by adding rows north to south. This pattern easily expanded in both directions to fill the interiors of the blocks. Because the structure was versatile in repetition, a correspondingly large block structure spread across Shanghai outside the early British and French concessions. Within seventy years—by the end of the 1940s—more than 72 percent of Shanghai was covered in *lilong*.[11]

With the scarcity of housing, subletting became common practice, and the intended use of the *shikumen* as a single-family dwelling quickly superseded. Rooms were rented to other families, who then subdivided and sublet to others. A one-bay *shikumen*, although only one-room wide,

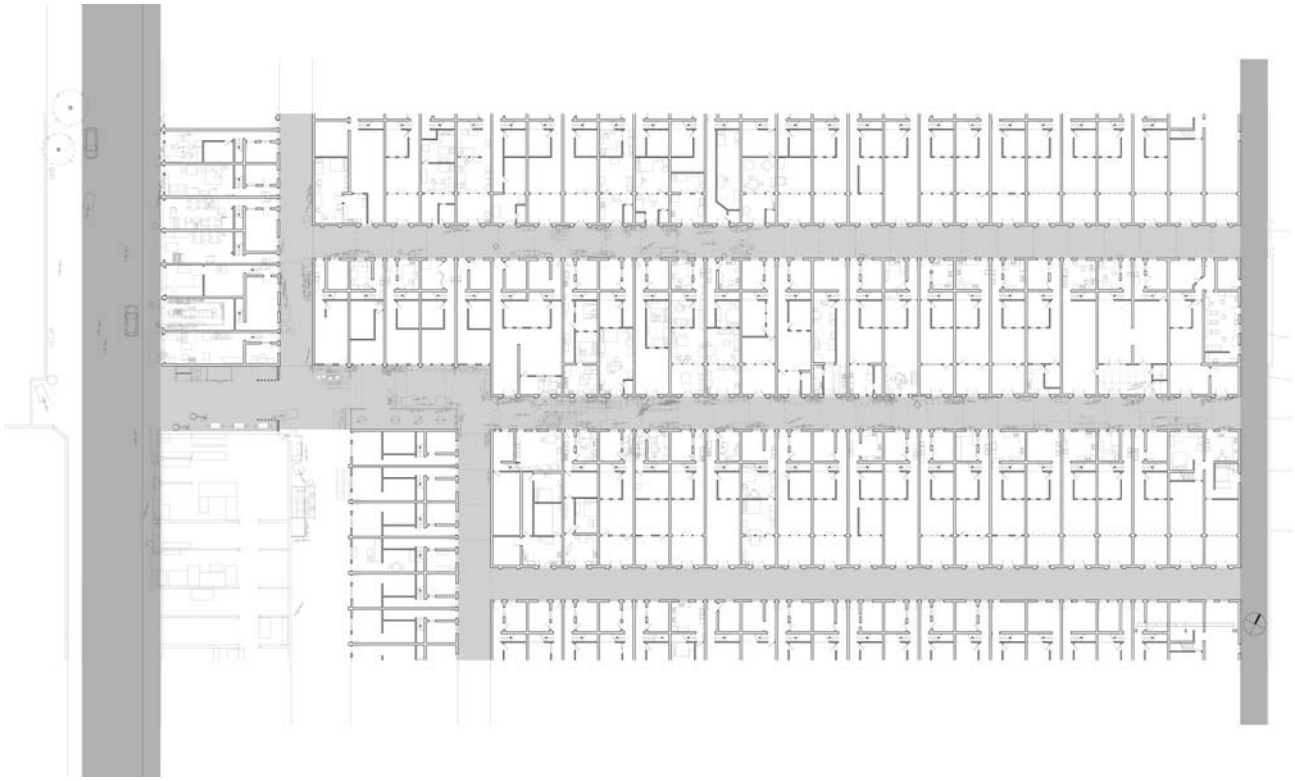

Figure 8 *Lilong* as occupied, 2007. Suzhou Creek is just north of this compound, and Datian Road is shown to the west (drawing by author)

Figure 9 *Lilong* as occupied, 2007 (drawing by author)

had a floor-to-ceiling height of 15 to 17 feet, and the depth of the reception room made possible its division into a front reception room, *qian ketang*, and a back room, *hou ketang*. A loft was built above the back room, accessed either from the front reception room or by the stairs. Like the lower level, the upper-floor bedroom was divided into a front and a back room, and an attic was built above. Courtyards were filled in, and extra rooms were built above the north service zone: "The floor area of a single-bay alleyway house that underwent remodeling could be increased 50 percent, and a house originally designed for a family of no more than 8 or 9 could be remodeled to accommodate 15 to 20 persons, or 4 to 9 families."[12] What was intended to be a well-lit, well-ventilated house became an overcrowded dwelling with the addition of floors, partitions, roofs, and ladders and was made substandard with inner rooms that had neither daylight nor natural ventilation. Field documentation shows that these conditions persist today in the remaining *lilong* (Figures 8 and 9).

Although the originally generous room sizes supported an increase in density (to the point of overcrowding), the alley access of the larger compound was equally important in facilitating the *shikumen*'s change from a single- to a multifamily dwelling. Like the typical Chinese courtyard house, the *lilong* is characterized by alternating access alleys and rows of houses. The southern primary portals of one row of units and the north service doors of another meet along the same alley. This characteristic differentiates such housing from an urban fabric in which residential buildings face other fronts along a street; the backs face other backs over shared private yards

or across service alleys. In the fabric of most Chinese cities, a south-facing orientation for a residential unit is top priority.[13]

Units could be sublet because the northern service zone was readily converted to an additional entry that provided access to the stairs. Changing the entrance from the south side of the unit to the north transformed movement within from the linear sequence described earlier into circulation from a hub centered on the stairs. From the stairs, the rear of the reception room and all the upper floors and lofts can be accessed without passing through another room. In practice, the modest, unarticulated north service doors serve as building entries for most of the residents in the *lilong*. The *shikumen* gate and patio serve only the family or individual who lives in the front reception room (Figures 10 and 11). The transformation of the *lilong* parallels the changing ideal of family: the *lilong* supported singles, couples, and families in nonrelated family patterns as well as extended families.

Although hidden from the street, the *lilong* extend the legibility of Shanghai as a water city. The *lilong* are east-west fields of party walls, separated by alleys at regular intervals. Within the compound, the alleys intersect a north-south lane that parallels a street outside the compound. Gates to the street, marked by stone portals, link these two parallel paths. The north-south streets intersect, and often end at, east-west city streets—the former canals (with their tow roads) that flowed to the Huangpu River. Until the recent decades of road building in Shanghai, individuals traveling east–west in the city had more direct routes than those traveling north-south. This structure encouraged the establishment of local retail services on the north-south lanes and regional retail, commercial, and cultural institutions on the east-west streets. Whatever their direction, the routes capitalized on an increasing catchment area of people and reinforced a reading of the city in relation to the Huangpu River, along which it was organized (Figures 12 and 13).

With the razing of the *lilong*, the city is losing a legible heritage that took centuries to form (Figures 14 and 15). It is losing its sense of being nested—in a district, in the street, in the community, in the alley, in the room—and the contribution of the inner realms to the clarity of orientation and navigation in the city.[14]

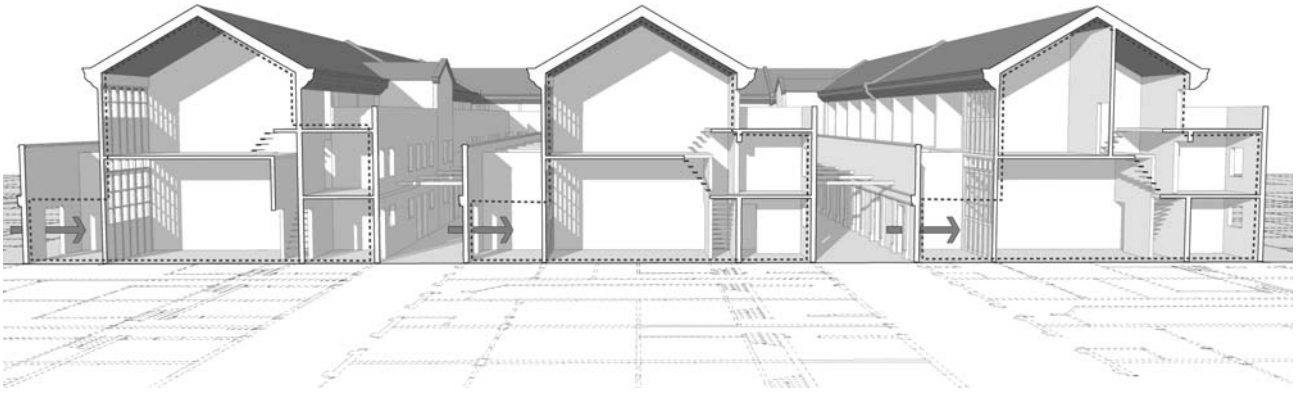

Figure 10 Original access from southern alley into the *shikumen*, 1914–21 (drawing by author)

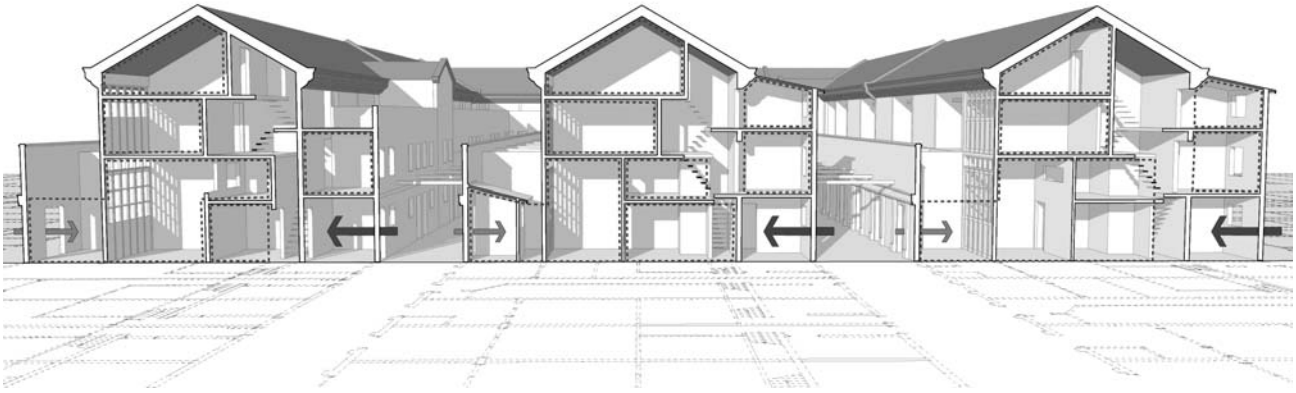

Figure 11 Transformation of access from northern alley to stair, 2007 (drawing by author)

Figure 12 Plan of Shanghai, 2012. The *lilong,* though still prevalent in the urban fabric, are quickly disappearing. The area documented in Figure 8 is marked in red. East-west roads include (1) Suzhou Creek, (2) Beijing Xi Lu, (3) Nanjing Xi Lu. North-south roads include (A) Datian Lu, (B) North-South Elevated Highway (drawing by author)

Figure 13 Highlighting the system of access reveals a street structure that reinforces the legibility of movement to the former canals and tow roads that flowed to the Huangpu River. East-west roads include (1) Suzhou Creek, (2) Beijing Xi Lu, (3) Nanjing Xi Lu; north-south roads include (A) Datian Lu (drawing by author)

Figure 14 Highlighting the contemporary "object" buildings reveals that they reinforce neither the access system nor urban legibility. East-west roads include (1) Suzhou Creek, (2) Beijing Xi Lu, (3) Nanjing Xi Lu; north-south roads include (A) Datian Lu, (B) North-South Elevated Highway (drawing by author)

Figure 15 Life in the *lilong* today (author's photo)

Notes

1. Piper Gaubatz, "China's Urban Transformation: Patterns and Processes of Morphological Change in Beijing, Shanghai and Guangzhou," *Urban Studies* 36, no. 9 (1999), 258.

2. This latest building boom is fueled by three historical anomalies: foreign investment in special economic zones, which have now spread throughout the country; the sale of land-use rights for properties taken by the Communist government; and the relaxation of *hukou*, or household registration, that mobilized an enormous migrant labor force.

3. Thomas Campanella, *in The Concrete Dragon: China's Urban Revolution and What It Means for the World* (New York: Princeton Architectural Press, 2008), 14–17, cites some amazing statistics about development in Shanghai. For example, "Some 925 million square feet of new building floor space was added to the city between 1990 and 2004, equivalent to 334 Empire State Buildings."

4. This essay is part of a larger project researching the relational systems in cities. My book *Suburban Space: The Fabric of Dwelling* (Berkeley: University of California Press, 2002) reshapes the discourse about forms of urbanism in both suburbs and cities. I am currently finishing a manuscript titled "Field Urbanism: Changing Forms of Chinese Cities."

5. X. Chen and Y. Zong, "Major Impacts of Sea-Level Rise on Agriculture in the Yangtze Delta Area around Shanghai," *Applied Geography* 19 (1999), 72.

6. For a full account of the early transformation of the Yangtze River delta, see Linda Johnson, *Shanghai: From Market Town to Treaty Port, 1074–1858* (Stanford, Calif.: Stanford University Press, 1995), 21–42.

7. *Shikumen* translates as "stone warehouse door" or "stone gate." In this essay, however, the word *shikumen* refers to an individual unit and *lilong* to the collective compound of lanes, alleys, and houses, following the usage of such scholars as Edward Denison and Guang Yu Ren; see their book *Building Shanghai: The Story of China's Gateway* (Chichester, UK: John

Wiley and Sons, 2006), 161. There is some debate about the origins of the terms and whether *shikumen* refers to the gate of the house or the gate of the compound, as described by Hanchao Lu, *Beyond the Neon Lights: Everyday Shanghai in the Early Twentieth Century* (Berkeley: University of California Press, 1999), 143–44.

8. "From September 1853 to July 1854, more than 800 two-story row houses were built on Guangdong Road and Fuzhou Road in the British Settlement." Ibid., 139.

9. Denison and Ren, *Building Shanghai*, 159.

10. Lu, *Beyond the Neon Lights*, 156.

11. Ibid., 142.

12. Ibid., 157. Lu cites a 1936–37 survey of housing in Shanghai that found nearly every *lilong* house had been changed, and according to the documentation available now, all have been changed.

13. Whether the southern orientation of a house is auspicious or mandated by code, sunlight is key. This imperative shaped traditional courtyard houses and Soviet-style housing blocks within *danwei* (self-contained compounds for work and living, initiated during the Communist era) and continues in contemporary residential villas and housing towers.

14. This nested interiority has been described as cellular by many researchers, including Daniel Abramson, "Urban Planning in China: Continuity and Change—What the Future Holds May Surprise You," *Journal of the American Planning Association* 72, no. 2 (2006), 199; Andrew Boyd, *Chinese Architecture and Town Planning, 1500 B.C.–A.D. 1911* (Chicago: University of Chicago Press, 1962), 50; William Skinner, *The City in Late Imperial China* (Stanford, Calif.: Stanford University Press, 1977), 18.